

United States
Department of
Agriculture

Forest
Service

Southern
Region

Reply To: 1920

Date: May 19, 1995

Subject: Inventories for Forest Plan Revisions

To: Forest Supervisors

As we continue efforts to revise our Land and Resource Management Plans, it is important that we have a consistent set of criteria for the inventory of roadless areas. We have over the past several months provided guidance on how to conduct this inventory. To clearly explain to our involved publics the criteria and approach used in this process, we are consolidating the direction/guidance from the previous letters dated October 25, 1994; February 7, 1995; February 28, 1995; March 14, 1995; and April 17, 1995 into this one document for reference purposes.

If you have any questions concerning these criteria, please contact Gary Pierson, Paul Arndt, or Bill Hughes in the Regional Office; or John Romanowski on the Cherokee NF.

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CRITERIA FOR INVENTORYING ROADLESS AREAS

During the Forest Plan Revision process, a re-inventory of roadless areas on the National Forests is required (36 CFR 219.17). Using the criteria identified in FSH 1909.12, Chapter 7, Section 7.1, a re-evaluation of all National Forest System lands for possible inclusion in the roadless area inventory must be completed, with public participation.

As a basis for beginning this process, use the results of your last forest-wide roadless area inventory. For some Forests, the last (and only) inventory may have been the original RARE II inventory (Final Environmental Impact Statement, Roadless Area Review and Evaluation, January 1979). For other Forests, a roadless area inventory may have been accomplished as a part of the original Forest Plan. If the FEIS to your Forest Plan contained an appendix (usually Appendix C) which evaluated all the roadless areas on the Forest, then that would be the basis for starting this roadless area inventory update. If, however, this was not done as a part of the original planning effort (perhaps because of the passage of a Wilderness Act for your State) then the original RARE II inventory should be used as a starting point.

This re-inventory process will also determine if the areas identified in the last roadless area inventory still possess roadless characteristics. Any inventoried area "released" through a legislative Wilderness Act, or allocated to "multiple-use" through the Forest planning process, is still a part of the roadless area inventory and it must be re-evaluated. Those areas that, through this re-evaluation, are determined to no longer possess roadless characteristics can be removed from the roadless area inventory. If only a portion of an existing roadless area does not meet the roadless area criteria, then redefine the boundary to exclude that portion, keeping the remainder of the area in the inventory (providing it meets the criteria in FSH 1909.12, Chapter 7.11). We must be prudent and even-handed in applying the criteria, especially when modifying or dropping an area from further consideration as a roadless area.

The remaining National Forest acres will also need to be evaluated for possible inclusion in the roadless area inventory. Pay particular attention to primitive (P), semi-primitive non-motorized (SPNM) and semi-primitive motorized (SPM) ROS (Recreation Opportunity Spectrum) inventoried areas and areas adjacent to designated Wilderness. Any areas that meet the roadless area criteria will be added to the inventory.

The results of this new roadless area inventory will be documented in an Appendix (usually Appendix C) of the EIS for the Revised Forest Plan.

Once the new roadless area inventory is finalized, any proposed site-specific projects within an inventoried area will require an environmental analysis which considers the effects to the roadless characteristics in the area. Keep in mind that the effects analysis must consider the entire area, not just the project area.

The following criteria in PSH 1909.12, Chapter 7, apply to National Forests in the Southern Region and are to be used in the inventory of roadless areas (or potential wilderness areas, as referred to in the citation):

"7.1 - INVENTORY OF POTENTIAL WILDERNESS. The first step in the evaluation of potential wilderness is to identify and inventory all roadless, undeveloped areas that satisfy the definition of wilderness found in section 2(c) of the 1964 Wilderness Act."

Section 2(c) of the 1964 Wilderness Act states the following:

"An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which

- (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable;
- (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation;
- (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and
- (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

"7.11 - Inventory Criteria. Roadless areas qualify for placement on the inventory of potential wilderness if, in addition to meeting the statutory definition of wilderness, they meet one or more of the following criteria:

1. They contain 5,000 acres or more.
2. They contain less than 5,000 acres but:
 - a. Due to physiography or vegetation, they are manageable in their natural condition.
 - b. They are self-contained ecosystems such as an island.
 - c. They are contiguous to existing wilderness, primitive areas, Administration-endorsed wilderness, or roadless areas in other Federal ownership, regardless of their size.
3. They do not contain improved roads maintained for travel by standard passenger-type vehicles, except as permitted in areas east of the 100th meridian (sec. 7.11b)."

"7.11b - Criteria for Roadless Areas in the East. National Forest System lands in the eastern United States have been acquired over time from private ownership. Criteria for inventorying roadless areas in the East recognize that much, if not all of the land, shows some signs of human activity and modification even though they have shown high recuperative capabilities. Roadless areas east of the 100th meridian qualify for inventory as potential wilderness if:

1. The land is regaining a natural, untrammeled appearance.
2. Improvements existing in the area are being affected by the forces of nature rather than humans and are disappearing or muted.
3. The area has existing or attainable National Forest System ownership patterns, both surface and subsurface, that could ensure perpetuation of identified wilderness values.
4. The location of the area is conducive to the perpetuation of wilderness values. Consider the relationship of the area to sources of noise, air, and water pollution, as well as unsightly conditions that would have an effect on the wilderness experience. The amount and pattern of Federal ownership is also an influencing factor.
5. The area contains no more than a half mile of improved road for each 1,000 acres, and the road is under Forest Service jurisdiction.
6. No more than 15 percent of the area is in non-native, planted vegetation.
7. Twenty percent or less of the area has been harvested within the past 10 years.
8. The area contains only a few dwellings on private lands and the location of these dwellings and their access needs insulate their effects on the natural conditions of Federal lands."

The Inventory of Roadless Areas versus the Evaluation of Roadless Areas

It is important to differentiate between the "inventory" of roadless areas (or potential wilderness areas) and the "evaluation" of those areas for possible wilderness recommendations. The "evaluation" criteria for wilderness is found in FSH 1909.12, Chapter 7, Section 7.2. At this point, the objective is not to determine if a particular area should be recommended for wilderness -- that comes later in the planning process -- but only if an area should be included in the inventory for future consideration as wilderness. Projects planned within these inventoried roadless areas must analyze the impacts to their roadless area characteristics.

For purposes of developing a consistent inventory, the following guidelines should be used while applying the aforementioned criteria in the roadless area inventory process:

A. APPLICATION OF THE CRITERIA

Sections 7.11, 7.11a, and 7.11b of PSH 1909.12, WO Amendment 1909.12-92-1, all apply to Forests in the Southern Region. Areas must meet all the listed criteria to be eligible for inclusion on the roadless area inventory. (This includes providing opportunities for solitude, etc.)

An existing RARE II area or an area recommended for wilderness study in a Land and Resource Management Plan must also meet all of the criteria in order for it to remain in the roadless area inventory. However, the Forest Supervisor has the discretion to evaluate these areas for wilderness study recommendation as a part of their Forest Plan revision process.

B. COORDINATION BETWEEN FORESTS

We need to ensure that the application of the criteria and the identification of the boundaries of roadless areas that are common to more than one National Forest are coordinated together.

C. ADJACENT OR CONTIGUOUS AREAS

When evaluating an area adjacent to (or contiguous to) an existing wilderness, or congressionally designated wilderness study area (WSA), consider only those areas that adjoin a wilderness or WSA when applying the roadless criteria. These acres cannot be separated from the wilderness or WSA by an improved road, railroad or utility corridor.

Any proposed addition to an existing wilderness or WSA must be "logically" connected to that wilderness or WSA.

Only the acres in the possible addition should be considered when applying the criteria (i.e., they should be evaluated as stand-alone areas). The combined acres of the addition plus the existing wilderness or WSA should not be used in applying the criteria. For example, in a possible addition less than 1,000 acres in size, not more than 1/2-mile of improved road (see the enclosed guidance) is permitted in that area in order for it to be included as an inventoried roadless area.

Any additions to existing wilderness or WSAs must meet all of the criteria. This includes the "sights and sounds" criterion (see Sec. 7.11b-5).

Some additions to existing wilderness or WSAs will be left up to the Forest Supervisors' discretion, based upon the need to "logically" adjust the boundaries.

D. MINERALS

Section 7.11a-4 provides guidance on how to apply the third criterion in 7.11b concerning surface and subsurface ownership patterns. It states that,

"Inventoried roadless areas also may include:

- a. Areas that otherwise meet inventory criteria if they are covered by mineral leases having a 'no surface occupancy' stipulation.
- b. Areas covered by mineral leases that otherwise meet inventory criteria only if the lessee has not exercised development and occupancy rights. If and when these rights are exercised, remove the area, or portion affected, from the inventory unless it is possible to establish specific occupancy provisions that would maintain the area in a condition suitable for wilderness."

E. NON-NATIVE, PLANTED VEGETATION

In applying the criterion of 7.11b-6, where no more than 15 percent of the area is in non-native, planted vegetation; this would include wildlife openings, balds, and seeded roads.

F. HARVESTED AREAS

In applying the criterion of 7.11b-7, the word "Harvest" refers to the final regeneration cut; i.e., clearcut, seed-tree, shelterwood, group selection, or single-tree selection. Thinnings would not be counted.

There appears to be a conflict in direction between FSH 1909.12, 7.11a-9 and 7.11b-7. In 7.11a-9, it states that the only places where timber harvested areas can be included in the inventory are "areas where stumps and skids trails or roads are substantially unrecognizable, or areas where clearcuts have regenerated to the degree that canopy closure is similar to surrounding uncut areas." However, 7.11b-7 states that an area can still qualify if "twenty percent or less of the area has been harvested within the past 10 years". If an area has been harvested within the past 10 years, and the harvested area is twenty percent or less, then the area still meets the criteria. It would be very difficult for a recently harvested area to meet the description found in 7.11a-9. The criteria for the Roadless Areas in the East (7.11b) allows for these areas to be included in the inventory, as long as they do not exceed twenty percent of the area.

G. SOLITUDE OR PRIMITIVE AND UNCONFINED RECREATION

One of the critical issues that has been identified during individual forest reviews of their roadless inventories concerns the criterion from Forest Service Handbook 1909.12 (7.11b) requiring that a roadless area be "conducive to the perpetuation of wilderness values." The 1964 Wilderness Act defines a number of wilderness values. Among these values, Section 2(c)(2) of the Act states that wildernesses must have "outstanding opportunities for solitude and a primitive and unconfined type of recreation."

In an attempt to quantify this criteria, use of the Recreation Opportunity Spectrum (ROS) and the semi-primitive class of lands is recommended. As defined in the 1986 ROS Book, recreationists in areas inventoried as semi-primitive have a high to moderate "probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance...in an environment that offers challenge and risk." Based on this definition, semi-primitive lands were identified as the lands that best satisfied the solitude qualities of roadless areas. Therefore, it is desirable for the "core" of a roadless area to meet the conditions of a semi-primitive non-motorized or semi-primitive motorized ROS classification. (Generally, there are very few areas in the Southern U.S. that qualify under the "primitive" ROS classification.)

Since the ROS Book states that semi-primitive areas contain at least 2,500 acres (unless they are contiguous to primitive class lands) this 2,500-acre minimum size can be used as a screen to evaluate areas identified and mapped by either the forest or the public. This 2,500-acre screen does not apply to additions to existing wildernesses.

However, it is important to recognize that this 2,500-acre semi-primitive "core" size is not an absolute minimum. It is only a screen and as such should be used only as a guide.

Some areas above or below this size, may or may not provide solitude. For these areas, one needs to look closely at topography, proximity to type and use of roads, population centers and other sights and sounds of human activity to determine if solitude and primitive and unconfined recreation could be experienced. This is going to be a professional judgement based on your knowledge of the area.

Two specific areas related to this issue of "solitude" will require close consideration, 1) unaltered RARE II areas with ROS core areas less than 2,500 acres, and 2) areas larger than 5,000 acres with ROS core areas less than 2,500 acres. As referenced above, these areas need to be reviewed based on using the 2,500 acre ROS core as a coarse screen rather than an acreage requirement.

H. DELINEATING ROADLESS AREA BOUNDARIES

When possible, boundaries for roadless areas should follow natural or semipermanent human-made features to facilitate easy on-the-ground location and management.

- Use boundaries that are easy to define and locate, both on a map and on the ground.
 - * Use natural features such as live streams, well-defined ridges or drainages and mountain peaks. Use human-made features such as roads, trails, dams, powerlines, pipelines and bridges. May also use previously surveyed lines or legally determined lines such as property lines and State boundaries.
 - * Boundaries should not cross powerlines, state/county roads or major access roads.
- Use boundaries that would be easy to manage should the area later become wilderness.
 - * Narrow, elongated, gerrymandered areas are not suitable.
 - * The "cherry-stemming" of boundaries around roads into roadless areas is not appropriate.
 - * Exclude narrow fingers or appendages into private lands.
 - * Roadless areas can contain less than 70-percent Federal ownership, but only if it is realistic to manage the Federal lands as wilderness, independent of the private land.

Boundaries should consider shape, juxtaposition to external influences.

- Where possible, conform with terrain or other features that constitute a barrier to prohibited use.
- Locate boundaries to avoid conflict with important existing or potential public uses outside the boundary that might result in demands to allow nonconforming activities within the area should it become wilderness.
- Where practicable, locate boundaries so as to shield the area from external sights and sounds of civilization.
- Boundaries should be located to provide adequate opportunity for access and trailhead facilities.

When adjusting boundaries of existing RARE II identified areas to eliminate portions that no longer meet roadless criteria, locate the boundary to narrowly exclude the non-conforming area using what natural or human-made features are available.

At this stage of analysis it is not necessary to be concerned with precise boundary descriptions, such as "offset xx feet and parallel to the centerline of road xx", or "follows clearing limits, xx feet from centerline of gas pipeline"; this will come later if the area is designated Wilderness. In establishing roadless area boundaries, simply consider it as following the road R-O-W, powerline clearing, and other features.

For an area that crosses administrative boundaries (ranger districts, forests, States), treat it as one area for calculating acres and improved road densities and assign it one name and number.

A boundary of a viable unit does not have to be expanded just to include acres up to the maximum road density. The boundaries should just follow the above guidelines for delineating a roadless area boundary.

Further guidance is provided in Section 7.26 - Boundary Adjustment Guidelines in FSH WO Amendment 1909.12-92-1.

I. IDENTIFYING ROADS AS IMPROVED OR UNIMPROVED

Description of an "Improved" Road

An improved road has a definable, constructed cross-section, is properly drained, may or may not be surfaced, and is useable by most vehicle types. Some roads may only be useable by high clearance vehicles. It is also stable for the predominant traffic during the normal use season.

All roads assigned a Maintenance Level of 3, 4, or 5 in the Forest Development Transportation Plan are improved roads maintained for travel by standard passenger cars.

Maintenance Level 1 (roads closed to vehicle use for one year or longer) and Maintenance Level 2 (roads maintained for high clearance vehicles such as pick-ups, 4x4's, etc.) are "improved roads" if they meet the above description.

Description of an "Unimproved" (or "Non-Improved") Road

Maintenance Level 1 and 2 roads are "unimproved" roads if they do not have a definable, constructed cross-section, but rather were developed through use. They would have no surfacing or improved drainage structures. They may not be stable under some traffic or weather conditions during the normal use season. Their primary use is by high-clearance vehicles, but some roads may be used by most vehicle types.

Further Clarification on the Differences Between Improved and Unimproved Roads (See also page 11)

The determination as to whether a road is "improved" or "unimproved" is an area where a certain amount of flexibility was contemplated. For the Maintenance Level 1 and 2 roads, the actual conditions of the road are what make the determination as to whether or not it is an "improved" or "unimproved" road. The major points are:

- Maintenance Level 2 roads can be improved roads, even if only suitable for high-clearance vehicles. This is in keeping with our position that "standard passenger-type vehicles" (FSH 1909.12, 7.11-3) encompasses all types of street-legal vehicles. However, if a Maintenance Level 2 road: a) is not currently being maintained for these; b) does not have a definable, constructed cross-section; and c) is not stable during normal traffic and weather conditions, then it is an unimproved road.
- Maintenance Level 1 roads are not maintained for any vehicular use. Consequently, it is our expectation that many of these roads are unimproved. However, it is the function and appearance of these roads that are the key points to consider in making a determination if it is an improved or unimproved road.

Additional Information to Consider

- Consider all forest roads; not just those on TIS (the Transportation Inventory System). The road inventory status has nothing to do with the decision on how a roadless area is affected. The deciding factors are jurisdiction (FS versus Other) of the road and whether the road is improved or unimproved.
- A road that is permanently closed and managed as a wildlife opening is not a road.
- If the long-term intent is to maintain a road for access, but it is currently mowed as a wildlife opening, it is an improved road.
- A road is maintained for vehicle travel if there is scheduled maintenance on a specified timeframe. (If a road is currently closed as a result of storm damage, but the long-term intent is to open the road and maintain its use, then the road is still viewed as being "maintained for travel".)
- A temporary road that is permanently closed and not maintained is not an improved road, regardless of how it looks. Temporary roads are not managed as roads after their time period for use has elapsed and are not a part of the road inventory.
- If a road is under the jurisdiction of a State or County, it cannot be included in a roadless area, no matter whether the road is improved or unimproved. If the jurisdiction of a road is uncertain and the road is located on NFS land, then assume that the Forest Service has jurisdiction. A road with a prescriptive right is assumed to be a State or County road.
- Relative to the road-density criterion, there is no restriction on the number of miles of unimproved roads that can be in a roadless area. This may, however, affect some of the other criteria.
- A gated road is not a closed road, but is a restricted road. A gated road usually has some traffic during the year, even if only administrative. Whether a gated road is an improved or unimproved road will depend upon the actual conditions of the road.
- If a road bisects an area under consideration as being roadless which causes the road miles to exceed the 1/2-mile road per 1,000-acre criteria, if it is appropriate and logical, the area should be separated into 2 areas and then each area evaluated for its roadless characteristics.

A Comparison of Improved Roads Verses Unimproved Roads**Improved Roads Include:**

- All highways and roads under State or County jurisdiction (includes roads with prescriptive rights) regardless of condition.
- All maintenance level 3,4,5 Forest Development Roads
- A maintenance level 1 or 2 Forest Development Road IF ...
 - It has a definable, constructed cross-section, even if the road surface is rough or irregular, and
 - Road design included proper drainage even if not properly functioning now, and
 - It is usable by most vehicle types or high-clearance vehicles only, and
 - It is stable for predominant traffic during normal season of use.
- In addition the road may be ...
 - surfaced or unsurfaced (dirt, gravel or paved), or
 - have grasses or herbaceous plants growing in the roadbed, or
 - maintained as a linear wildlife opening (for the short-term), or
 - open to public vehicular travel, or
 - closed by gate or earthen barrier, or
 - used on a reoccurring basis for resource management activities.
- Roads on private inholdings.
- Roads through national forest lands that access private lands, regardless of design or condition; these roads may or may not be under permit.

Unimproved Roads Include:

- Forest development roads that are closed to all vehicular use (including administrative use), and are not maintained for vehicular travel and have vegetation growing in the roadbed. The vegetation may be only grasses and herbaceous plants or may include woody plants, shrubs, saplings and trees.
- Historical and contemporary skid roads and trails used for logging.
- Old roads that predate national forest ownership that are not used or identified for use as part of the forest road system. They may or may not have vegetation growing in the roadbed. They may or may not be managed as part of the forest trail system.

J. IMPROVEMENTS ALLOWED IN ROADLESS AREASImprovements Allowed:

- Airstrips and heliports
- Electronic installations (TV, radio, phone repeaters)
- Areas with evidence of historical mining (50+ years ago).
- Prospecting if the only evidence is holes with no access roads.
- Mineral leases having "no surface occupancy" stipulation.
- Mineral leases if development occupancy rights have not been exercised.
- Recreation improvements such as occupancy spots or minor hunting or outfitter camps.
- Minor, easily removed recreation developments.
- Areas of historical logging.
- Plantations or plantings where the use of mechanical equipment is not evident.
- Evidence of historical settlement.
- Ground return telephone lines if R/W has not been cleared.

Improvements Excluded:

- Significant current mineral activity
- Areas with prospecting with mechanical earthmoving equipment.
- Developed recreation sites.
- Active railroads and abandoned railroad beds that have significant cut and fills, old trestles, bridge abutments and cinder surfacing.
- Pipelines, transmission lines and utility corridors.
- High standard surfaced trails.

